GUIDELINES

PROPOSITION 39: CALIFORNIA CLEAN ENERGY JOBS ACT – 2013 PROGRAM IMPLEMENTATION GUIDELINES

CALIFORNIA
ENERGY COMMISSION

Edmund G. Brown Jr., Governor

DECEMBER 2013

CEC-400-2013-010-CMF

CALIFORNIA
ENERGY COMMISSION

ROBERT B. WEISENMILLER, PH.D.
Chairman

Commissioners
KAREN DOUGLAS, J.D.
ANDREW MCALLISTER
DAVID HOCHSCHILD
JANEA A. SCOTT

Haile Bucaneg
Pierre duVair
Cheng Moua
Justin Regnier
Keith Roberts
Elizabeth Shirakh
Joseph Wang
Primary Authors

Elizabeth Shirakh
Project Manager

Marcia Smith
Manager
Local Assistance and Financing Office

Dave Ashuckian
Deputy Director
Efficiency Division

Robert P. Oglesby
Executive Director

ABSTRACT

The California Energy Commission has developed these guidelines in accordance with Proposition 39 (2012) and Senate Bill 73 (Committee on Budget and Fiscal Review, Chapter 29, Statutes of 2013) adopted by the Legislature and signed into law by Governor Edmund G. Brown Jr. on June 27, 2013. Section 26235 (a) of the Public Resources Code requires the California Energy Commission to establish guidelines, in consultation with the State Superintendent of Public Instruction, the Chancellor of the California Community Colleges, and the California Public Utilities Commission.

Keywords: Proposition 39, California Clean Energy Jobs Act, Job Creation Fund, Senate Bill 73, energy efficiency, clean energy, conservation, conservation corps, school, community college districts, workforce training, education, local educational agency

Please cite this report as follows:

Haile Bucaneg, Pierre duVair, Cheng Moua, Justin Regnier, Keith Roberts, Elizabeth Shirakh, Joseph Wang. 2013. ***Proposition 39: California Clean Energy Jobs Act –2013 Program Implementation Guidelines.*** California Energy Commission, Energy Efficiency Division. Publication Number: CEC-400-2013-010-CMF.

TABLE OF CONTENTS

ABSTRACT ..... **i**

TABLE OF CONTENTS ..... **iii**

CHAPTER 1: Background and General Information **1**

Guideline Overview 2

Funding Distribution 2

Guideline Authority 3

Confidentiality 4

Effective Date of Guidelines 4

Substantive Changes in Guidelines 4

Nonsubstantive Changes in Guidelines 4

CHAPTER 2: Local Educational Agency Proposition 39 Award Program **5**

Eligibility 5

Schedule 6

Award Allocations 8

Process to Receive K-12 Eligible Energy Project Award Funding 14

Step 1: Electric and Gas Usage/Billing Data 14

Step 2: Benchmarking or Energy Rating System 15

Step 3: Eligible Energy Project Prioritization Considerations 16

Step 4: Sequencing of Facility Improvements 18

Step 5: Eligible Energy Measure Identification 18

Step 6: Cost-Effectiveness Determination 20

Step 7: Complete and Submit an Energy Expenditure Plan(s) 21

Step 8: Energy Project Tracking and Reporting 27

Energy Expenditure Plan Implementation Changes 30

Energy Project Construction Compliance Requirements 31

Contracts 32

Public Works Project Award Notification 32

No Retroactive Funding of Projects 33

CHAPTER 3: Additional Proposition 39 State Resources 35

Energy Conservation Assistance Act − Education Subaccount: Loan and Technical Assistance Program 35

California Workforce Investment Board Grant Program 37

California Conservation Corps 37

APPENDICES 39

APPENDIX A: Proposition 39 Implementation Program 2013-14 Funding Allocation for Energy Projects A-1

APPENDIX B: Energy Savings Calculators B-1

APPENDIX C: Proposition 39 Funding Pathway Example C-1

APPENDIX D: Benchmarking Process D-1

APPENDIX E: Savings-to-Investment Ratio (SIR) Calculation E-1

APPENDIX F: Effective Useful Life for Energy Measures in Years F-1

APPENDIX G: Power Purchase Agreement SIR Calculation Considerations G-1

APPENDIX H: Estimating Job Creation and Workforce Development H-1

APPENDIX I: Definitions I-1

APPENDIX J: List of Acronyms J-1

CHAPTER 1:
Background and General Information

The **California Clean Energy Jobs Act** was created with the approval of Proposition 39 in the November 6, 2012, statewide general election. Proposition 39 added Division 16.3 (commencing with Section 26200) to the Public Resources Code, added Sections 25136, 25136.1, and 25128.7 to the Revenue and Taxation Code, and amended Sections 23101, 25128, 25128.5, and 25136 of the Revenue and Taxation Code. The statute changed the corporate income tax code and allocates projected revenue to the General Fund and the Clean Energy Job Creation Fund (Job Creation Fund) for five fiscal years, beginning with fiscal year 2013-14. Under the initiative, roughly $550 million annually is available to be appropriated by the Legislature for eligible projects to improve energy efficiency and expand clean energy generation.

For fiscal year 2013-14, California's Legislature, through Senate Bill (SB) 73 (Committee on Budget and Fiscal Review, Chapter 29, Statutes of 2013), appropriated Proposition 39 revenue as follows:[1]

- $381 million in awards to local educational agencies (LEAs), which include county offices of education, school districts, charter schools, and state special schools for energy efficiency and clean energy projects.
- $47 million in awards to California community college districts for energy efficiency and clean energy projects.
- $28 million for low-interest and no-interest revolving loans and technical assistance to the California Energy Commission.
- $3 million to the California Workforce Investment Board (CWIB) to develop and implement a competitive grant program for eligible workforce training organizations to prepare disadvantaged youth, veterans, and others for employment in clean energy fields.

In addition to the above SB 73 appropriations, Governor Edmund G. Brown Jr.'s 2013-14 Budget Act, appropriated Proposition 39 revenue as follows:

- $5 million to the California Conservation Corps to perform energy surveys and other energy conservation-related activities.

---

1 Exhibit A in the Appendices provides a representation of fiscal year 2013-14 Proposition 39 implementation funding allocation.

In the subsequent four fiscal years, 2014-15 through 2017-18, LEAs and community colleges will receive allocations from the Job Creation Fund, when funds are appropriated by the Legislature, for eligible energy efficiency and clean energy projects that create jobs in California.

Guideline Overview

The Energy Commission has developed the *Proposition 39: California Clean Energy Jobs Act – 2013 Program Implementation Guidelines (Proposition 39 Guidelines*) in accordance with Proposition 39 (2012) and SB 73 (Committee on Budget and Fiscal Review, Chapter 29, Statutes of 2013). Public Resources Code Section 26235(a) requires the Energy Commission to establish guidelines, in consultation with the State Superintendent of Public Instruction, the Chancellor of the California Community Colleges, and the California Public Utilities Commission. To navigate the legal requirements of Proposition 39 and SB 73, the statute pertaining to a section of the *Proposition 39 Guidelines* is captured in a box at the beginning of each section.

These guidelines define how the State of California intends to implement the California Clean Energy Jobs Act (Proposition 39) Program. The *Proposition 39 Guidelines* provide direction to potential applicants on the types of awards and required proposals or plans, explains screening and evaluation criteria, describes the standards to be used to evaluate project proposals, and outlines the award process. The Energy Commission has developed these guidelines in accordance with Proposition 39 and SB 73.

In addition to the requirements identified in the guidelines, projects may also be subject to environmental regulations, local permits, and/or construction rules. These additional requirements are not addressed in the guidelines.

The Proposition 39 Guidelines consist of three chapters:

Chapter 1: Background and General Information

Chapter 2: Local Educational Agency Proposition 39 Award Program

Chapter 3: Additional Proposition 39 State Resources

Funding Distribution

Sections 26227-26233 of the Public Resources Code (added by SB 73) direct the specific allocation of Proposition 39 funding, in addition to specific 2013-14 fiscal year funding amounts for each program element. For the 2014-15 through 2017-18 fiscal years, inclusive, the amount of funding available from the Clean Energy Job Creation Fund to all program elements shall be determined in the annual California Budget. The five program elements are listed below with the corresponding funding allocations.

Local Educational Agency Proposition 39 Award Program

SB 73 establishes that 89 percent of the funds deposited annually into the Clean Energy Job Creation Fund and remaining after any transfers or other appropriations be allocated by the State Superintendent of Public Instruction (SSPI) for awards and made available to LEAs for energy efficiency and clean energy projects. For fiscal year 2013-14 the appropriation is $381 million.

California Community College Chancellor's Office

SB 73 establishes that 11 percent of the funds deposited annually into the Clean Energy Job Creation Fund be allocated to the California Community College Chancellor's Office (CCCCO) to be made available to community college districts for energy efficiency and clean energy projects. For fiscal year 2013-14 the allocation is $47 million.

The CCCCO is exempt from the requirements of the *Proposition 39 Guidelines* for fiscal year 2013-2014 but may be required to follow the guidelines (or future amended guidelines) for fiscal years 2014-2015 through 2017-2018.

California Energy Commission Energy Conservation Assistance Act − Education Subaccount: Loan and Technical Assistance Grant Program

SB 73 allocated $28 million in fiscal year 2013-14 to the Energy Commission for the Energy Conservation Assistance Act − Education Subaccount (ECAA-Ed). Of this amount, about 90 percent will be available for low-interest or no-interest loans. The remaining 10 percent will be transferred to the Energy Commission's Bright Schools Program to provide technical assistance grants to LEAs and community colleges. The Bright Schools Program technical assistance can provide American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Level 2 energy audits to identify cost-effective energy efficiency measures.

California Workforce Investment Board

SB 73 allocated $3 million for fiscal year 2013-14 to the California Workforce Investment Board (CWIB) to develop and implement a competitive grant program for eligible workforce training organizations, which prepares disadvantaged youth, veterans, or others for employment.

California Conservation Corps

The 2013-14 California Budget Act allocated $5 million in fiscal year 2013-14 to the California Conservation Corps (CCC) for energy surveys and other energy conservation-related activities for public schools.

Guideline Authority

These *Proposition 39 Guidelines* are adopted pursuant to Public Resources Code Sections 25218(e) and 26235, which authorize the Energy Commission to adopt guidelines governing the estimation of energy benefits, contractor qualifications, and project evaluation for the

Proposition 39 program. The guidelines are exempt from the procedural requirements of the Administrative Procedure Act, as specified in Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code. The guidelines may be revised pursuant to Public Resources Code Section 26235, Subdivision (d)(1).

Confidentiality

Persons or entities seeking a confidential designation for data shall follow the process identified in California Code of Regulations, Title 20, Section 2501 et seq.

Effective Date of Guidelines

These *Proposition 39 Guidelines* shall be effective upon adoption by the Energy Commission at a publicly noticed business meeting. The Energy Commission will post the adopted guidelines on its website, www.energy.ca.gov/efficiency/proposition39/index.html, or a copy may be obtained by contacting:

California Energy Commission
Efficiency Division
Local Assistance and Financing Office, MS-23
1516 Ninth Street,
Sacramento, CA 95814
E-mail: prop39@energy.ca.gov

Substantive Changes in Guidelines

After adoption, substantive changes to the adopted *Proposition 39 Guidelines* may be made with the approval of the Energy Commission at a publicly noticed meeting with no fewer than 15 days public notice. Unless stated otherwise in the resolution approving substantive changes, such changes shall take effect upon adoption by the Energy Commission. Substantive changes for the Proposition 39 program, policy, or design include but are not limited to:

- Changes in evaluation criteria.
- Changes in funding criteria for determining award amount to conform with statutory changes.

Nonsubstantive Changes in Guidelines

If the final *Proposition 39 Guidelines* require nonsubstantive changes, the Energy Commission will provide a notice of the changes to the Proposition 39 program list serve and post the amended guidelines on the Proposition 39 program Web page.

CHAPTER 2:
Local Educational Agency Proposition 39 Award Program

The SSPI is responsible for administering awards to LEAs that serve grades K-12 students. These funds may be used by LEAs for energy efficiency and clean energy projects, as well as related energy planning, energy training, energy management, and energy projects with related non-energy benefits. LEAs are required to submit an energy expenditure plan to the Energy Commission for consideration and approval. Funds are released to the LEA only after the Energy Commission approves an LEA's energy expenditure plan(s).

Eligibility

Eligible Energy Projects

Eligible energy projects are energy efficiency measures and/or clean energy installations in or at a school site.

Eligible Applicants

LEAs, which include county offices of education, school districts, charter schools, and state special schools, are eligible for program funding.

All facilities within the LEA are eligible for Proposition 39 program funding. These facilities include school facilities, as well as LEA office facilities. In addition to classrooms, other school building areas such as the auditoriums, multipurpose rooms, gymnasiums, cafeterias, kitchens, pools, and special purposes areas (that is, school/district office, library, media center, and computer and science labs) can be considered for energy efficiency measures and clean energy installations.

Generally, LEAs are located in publicly owned buildings and pay utility bills based on meters at their facilities.

Other LEAs use leased facilities with varied utility payment agreements. Eligibility for these LEAs is as follows:

Eligibility of LEAs in Leased Facilities

Leased Facilities

An LEA in a leased facility may use Proposition 39 program funding if the following conditions are met:

- *Cost-effectiveness criteria*. In addition to meeting the savings-to-investment ratio (SIR) of 1.05, each energy measure must have a simple payback either within the remaining period of the "lease agreement" or the remaining period of the "charter contract term," whichever is shorter.

To calculate the simple payback of an energy measure, first determine the total energy measure costs and secondly, determine total annual savings. Next, divide the total cost by the total annual savings. This calculation shows how fast the energy measure will "pay back" on the initial investment. In leased facilities, all Proposition 39 program funded energy measures must have a simple payback within either the term of the lease agreement or the term of the charter contract term, whichever is shorter.

Simple Payback = Project Cost ($) / Annual Savings ($/year)

A Private Building Owner Written Certification to Transfer Energy Cost Savings to LEA

To ensure an LEA in a privately-owned leased facility receives the energy savings cost benefit of the Proposition 39 program-funded energy measures, a building owner written certification is required if:

- An LEA leases a privately owned facility or building that does not have a separate meter.
- An LEA leases a privately owned facility or building, and the lease payment includes the utility cost.

If either of the above conditions applies, the building owner must commit to transferring the cost savings of the energy improvements to the LEA tenant, either through a reduced lease payment, or other form of monetary reimbursement.

Schedule

The anticipated Proposition 39 program implementation schedule is:

• SSPI to release energy audit and planning funds	November 2013, February 2014 and one additional request opportunity, if needed, in spring 2014
• Energy Commission to begin accepting energy expenditure plan proposals	January 2014
• SSPI to begin allocating awards	February – June 2014[2]

2 The first allocation of Proposition 39 funding for projects may commence as early as February. However, the allocation is contingent on the volume of projects submitted and approved.

• Two fiscal year combined funding award requests	September 1 (*annually*) Not offered in September 2017-18
• Award calculation completed by California Department of Education (CDE)	November 30 (*annually*)
• LEAs project completion reporting	Ongoing
• LEAs expenditure reports to Citizens Oversight Board (COB) and Energy Commission	October 1 (*annually beginning 2015*)
• Energy Commission report to COB	January 1 (*annually beginning 2016)*
• LEAs final encumbrance date	June 30, 2018
• Final date all projects must be complete	June 30, 2020
• LEAs final project reporting date	June 30, 2021

Award Allocations

Per SB 73, the SSPI will allocate funding awards on a formula-based method: 85 percent based on average daily attendance [3](ADA) reported as of the second principal apportionment for the prior fiscal year (P-2) and 15 percent based on the number of students eligible for free and reduced-priced meals (FRPM) in the prior year. This allocation formula includes minimum-funding award levels in a four-tiered system, as illustrated in Table 1.

Table 1: Minimum Funding Award Levels

Tier Levels	Average Daily Attendance Prior Year	Minimum Funding Awards
Tier 1	100 or fewer	$15,000 plus FRPM
Tier 2	101-1,000	Based on prior year ADA or $50,000 *(whichever amount is larger)* plus FRPM
Tier 3	1,001 to 1,999	Based on prior year ADA or $100,000 *(whichever amount is larger)* plus FRPM
Tier 4	2,000 or more	Based on prior year ADA plus FRPM

Source: California Energy Commission

3 Education Code Section 46303.

(a) If any computation of average daily attendance made under, or necessitated by, any provision of law, results in a fraction of less than one-half of a unit, the average daily attendance shall be taken as the next lowest whole number, except that if such computation results in an average daily attendance of less than one unit, the average daily attendance shall be deemed to be one unit; but if the fraction is one-half or more of a unit, the average daily attendance shall be taken as the next highest whole number, and
(b) Whenever any reference is made to a specific whole number of units of average daily attendance said number shall include any fraction above said number which is less than one-half of a unit, and any fraction of one-half or more of a unit above the next lowest whole number.

Annual Award Calculation

The California Department of Education (CDE) will calculate the LEA funding awards each fiscal year. Once the CDE compiles prior year ADA and FRPM information, the CDE will calculate total awards for all LEAs based on the amount appropriated for Proposition 39 during the annual budget process and the number of LEAs requesting two years of funding (see below) in the current year (and taking into account the minimum award requirements).

LEAs are cautioned not to rely on calculations or estimates by entities other than the CDE. To see the final CDE 2013-14 fiscal year awards, please go to http://www.cde.ca.gov/fg/fo/r14/prop39cceja13rfa.asp.

Two-Year Combined Award Option (Funding Award − Tier 1 and Tier 2):

LEAs with 1,000 or fewer prior year ADA are eligible to receive both the current year and the following year funding in the current year. To request the two-year combined funding, apply online through the CDE at http://www.cde.ca.gov/fg/fo/r14/prop39cceja13rfa.asp.

- By September 1, 2014, for 2014-2015 and 2015-2016 award.
- By September 1, 2015, for 2015-2016 and 2016-2017 award.
- By September 1, 2016, for 2016-2017 and 2017-2018 award.

LEAs selecting this option shall not receive a funding allocation in the year following the request.

Energy Planning Funds Reservation Option

Eligible LEAs have the option of requesting a portion of their fiscal year 2013-2014 award for energy planning now, without submitting an energy expenditure plan(s) to the Energy Commission. This option is available only for the fiscal year 2013-2014 award of the Proposition 39 program and is intended to be used for planning activities for subsequent fiscal years (2013-2014 through 2017-18). No energy planning fund request option will be offered in subsequent years.

The first application for energy planning funds was due on November 1, 2013. A second application period will be available in January 2014, with one additional request opportunity if needed in spring 2014. To request 2013-14 award funding for energy planning, apply online through the CDE website at: http://www.cde.ca.gov/fg/fo/r14/prop39cceja13rfa.asp.

Allowed Energy Planning Activities

The energy planning funds can be spent only on the following four activities:

- Energy audits and energy surveys/assessments.
- Proposition 39 program assistance
- Hiring or retaining an energy manager(s)
- Energy-related training

Table 2 below provides a detailed description of each activity. Planning funds may be used for any of the four categories at the LEA's discretion. Table 2 illustrates "Best Practices Cost Guidance" for energy audits, energy surveys, and data analytics.

Table 2: Energy Planning Activities

Pre-Expenditure Plan Approved Activities	Description of Activity	Best Practices Cost Guidance
American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Level 2 Energy Audit plus SIR as defined by the guidelines.	An ASHRAE Level 2 energy audit shall review the past 12 months of utility billing data and calculations of energy use intensity (EUI) and a walk-through of the facility. The audits shall also provide a list of all energy efficiency measures recommended for implementation and shall include detailed costs for energy measures, energy savings calculations, and financial analysis of proposed energy efficiency measures. The financial analysis shall provide a comprehensive understanding of the financial benefits of implementing the specific energy efficiency measure recommendations and include a savings-to-investment ratio (SIR) according to the guidelines.	$0.15 - $0.20 per gross square foot[4]
Energy Surveys & Data Analytics	Energy surveys and data analytics may be used as tools to identify opportunities for energy efficiency measures at LEA facilities, such as those listed in Exhibit B in the guidelines, for which an Energy Commission calculator may be used to determine energy savings.	$0.02 - $0.05 per gross square foot
Proposition 39 Program Assistance	If an LEA needs assistance completing the Proposition 39 program requirements, it may use part of the award for Proposition 39 program assistance activities. For example, LEAs are required to provide electric and gas usage/billing data, complete benchmarking, submit an energy expenditure plan(s), and complete reporting requirements necessary to receive eligible energy project funding under this program. Energy planning funds requested for Proposition 39 program assistance activities can be used to complete any of the required Proposition 39 program steps.	
Energy Manager	An energy manager's responsibility is to improve energy efficiency by evaluating the school's energy use and implementing energy policies, strategies, programs, and energy measures. Energy managers may review related work that could improve health and safety or classroom conditions. Typical work responsibilities include, but are not limited to, evaluating and monitoring current energy usage, identifying energy saving opportunities in existing facilities, ensuring accurate records are maintained, providing technical energy efficiency and conservation services, and managing all stages of energy project implementation.	
Energy-Related Training	Energy efficiency training of classified school employees.	

Source: California Energy Commission

4 "Gross" means all the square footage inside the perimeter of exterior walls (less courtyards).

Maximum Energy Planning Award Funding Request

1) LEAs with first-year awards of $433,000 or less may request up to $130,000 of their first-year award for planning activities.
2) LEAs with first-year award of $433,001 or more may request up to 30 percent of their first-year award for planning activities.

Tier 1 and Tier 2 LEAs that elected to receive two years of award funding in fiscal year 2013-2014 may request up to one-half of the combined award.

Unused Energy Planning Awards

Any unused energy planning funds shall be applied toward implementing eligible energy project(s) approved as part of an LEA's energy expenditure plan(s).

If an LEA decides to request only a portion of its first-year award for energy planning, the energy planning funding requested will be subtracted from the total award, and the remaining funding will be available for implementing eligible energy projects through the energy expenditure plan process.

Retroactive Planning Activities

Proposition 39 funding may be used to pay for only energy planning activities occurring on or after July 1, 2013. If energy planning activities took place before July 1, 2013, those energy planning activities are not eligible for retroactive Proposition 39 funding.

Reporting Planning Activities and Expenditures

All LEAs shall report their planning activities and related expenditures as part of their first-energy expenditure plan following planning work completion.

New Charter Schools Commencing Instruction in 2013-2014 or Later

For new charter schools that commence instruction in fiscal year 2013-14 or later, energy planning funds for those new schools will be available in the first fiscal year of Proposition 39 funding eligibility, so long as prior year average daily attendance (ADA) counts are provided during the second principal apportionment reporting period. For example, a charter school that begins instruction in fiscal year 2013-14 can use fiscal year 2014-15 award funds for planning activities, provided 2013-14 ADA counts are available.

Large Eligible Energy Project Award Requirements (Tier 4 Awards)

Public Resources Code section 26233(b)(3) states, "For every LEA that receives over one million dollars ($1,000,000) pursuant to this subdivision, not less than 50 percent of the funds shall be used for projects larger than two hundred fifty thousand dollars ($250,000) that achieve substantial energy efficiency, clean energy, and jobs benefits."

LEAs that receive an award of more than $1 million in any one fiscal year are required to submit an energy expenditure plan that meets the large eligible energy project requirement highlighted above. A *large eligible energy project* is defined as a group of energy efficiency measures combined for a project cost totaling more than $250,000. The intent of the code section above is for LEAs to implement large eligible energy projects at individual school sites.

Leveraging Award Funding

Public Resources Code Section 26235(g) states, "This section shall not affect the eligibility of any eligible entity awarded a grant pursuant to this section to receive other incentives available from federal, state, and local governments or from public utilities or other sources or to leverage the grant from this section with any other incentive."

LEAs may pursue other programs and incentives to leverage Proposition 39 awards, such as, but not limited to:

- The Energy Commission's Bright Schools Program "no-cost" energy efficiency audits.
- California Conservation Corps "no-cost" and "low-cost" energy efficiency data collection and energy efficiency surveys.
- Local government programs.
- Utility programs.
- The Energy Commission's ECAA-Ed Loan Program.
- Bond funding.
- Other private capital funding.

Award Funding for Energy-Related Training

Public Resources Code Section 26235(a)(6) identifies as a *Proposition 39 Guidelines* component "Where applicable, ensuring LEAs assist classified school employees with training and information to better understand how they can support and maximize the achievement of energy savings envisioned by the funded project."

For years 2-5 of the Proposition 39 program, training funds may be requested as part of an energy expenditure plan. Therefore, for fiscal years 2014-15 through 2017-18, an LEA will have the option of requesting up to 2 percent of its award for energy efficiency training of classified school employees.

Award Funding for Energy Manager

For years 2 -5 of the Proposition 39 program, energy manager funds may be requested as part of an energy expenditure plan. Therefore, for fiscal years 2014-15 through 2017-18, an LEA will have the option of requesting up to 10 percent of its award to hire or retain an energy manager(s). Many LEAs do not have the staff, knowledge, or time to effectively control and manage energy costs. Therefore, LEAs may consider using an energy manager(s) who can actively work to reduce the energy operational costs of a school and provide more control over energy costs. Energy manager(s) may be LEA staff or outside consultants.

LEAs too small to justify hiring their own energy manager may consider pooling their energy manager funding and sharing the services of an energy manager.

Award Funding for Non-Energy Benefit Projects

Public Resources Code Section 26205(a)(1) allows for funding of non-energy benefit projects by stating, "Public schools: Energy efficiency retrofits and clean energy installations, along with related improvements and repairs that contribute to reduced operating costs and improved health and safety conditions, on public schools."

Non-energy benefits include other associated energy project benefits such as health, safety, enhanced comfort, better indoor air quality, and improvements to the learning environment. The Savings to Investment (SIR) calculator explained in detail in Appendix E uses a five percent adder to estimate non-energy benefits associated with all energy efficiency projects.

Process to Receive K-12 Eligible Energy Project Award Funding

LEAs need to follow the eight-step process described in this section to participate in the Proposition 39 program

Step 1: Electric and Gas Usage/Billing Data

> Public Resources Code Section 26240(a) states, "In order to later quantify the costs and benefits of funded projects, an entity that receives funds from the Job Creation Fund shall authorize its local electric and gas utilities to provide 12 months of past and ongoing usage and billing records at the school facility site level to the Energy Commission."

The first step to receive program award funds for eligible energy project implementation is to provide the Energy Commission access to utility data at the school site level. Each LEA must identify all electric, natural gas, propane, or fuel oil accounts for all its schools and facilities and provide a signed utility data release form allowing the Energy Commission to access both historical (the past 12 months) and future utility billing data through 2023. Access to utility data will include all schools and facilities within an LEA, not just schools and facilities with planned or active eligible Proposition 39 program energy projects. LEAs will only need to submit the signed utility data release form the first time they submit an energy expenditure plan. The Energy Commission's Proposition 39 website includes a Proposition 39 program utility data release authorization form(s): http://www.energy.ca.gov/efficiency/proposition39/index.html. LEAs may use this form to submit their request for Energy Commission access to usage data to their utility or LEAs may use the utility's standard data release form. If an LEA has separate providers for gas and electricity, the LEA will need to complete two data release forms—one for the gas company and one for the electric company. Once the energy data release form is signed by the LEA, the Energy Commission will work directly with the utility(ies) to transfer the LEA's energy usage data to the Energy Commission.

Table 3 on the next page, provides the utility billing data reporting schedule for utilities to transfer LEA energy usage date to the Energy Commission. For example, historic billing data is the July 1–June 30 fiscal year which immediately precedes the fiscal year in which the LEA submits an energy expenditure plan to the Energy Commission. Future fiscal year utility billing data is reported annually on December 31 until June 30, 2023 as noted.

Table 3: Utility Billing Data Reporting Schedule

1st Energy Expenditure Plan Submission Period	1st Date Utilities Required to Report to Energy Commission	Historic Utility Billing Data Reporting Period	Future Utility Billing Data Reporting Period
1/1/2014 – 6/30/2014	12/31/2014	7/1/2012 – 6/30/13	7/1/2013 – 6/30/23
7/1/2014 – 6/30/2015	12/31/2015	7/1/2013 – 6/30/14	7/1/2014 – 6/30/23
7/1/2015 – 6/30/2016	12/31/2016	7/1/2014 – 6/30/15	7/1/2015 – 6/30/23
7/1/2016 – 6/30/2017	12/31/2017	7/1/2015 – 6/30/16	7/1/2016 – 6/30/23
7/1/2017 – 6/30/2018	12/31/2018	7/1/2016 – 6/30/17	7/1/2017 – 6/30/23

Source: California Energy Commission

Step 2: Benchmarking or Energy Rating System

Public Resources Code Section 26235(a)(3)(A) states the Energy Commission shall establish guidelines for "benchmarks or energy rating systems to select best candidate facilities."

As part of the project evaluation, an LEA must "benchmark" to determine the energy use intensity (EUI) of any school site that receives Proposition 39 program funding. Benchmarks provide important information about the energy usage of a school site. This information is similar to the miles-per-gallon metric for vehicle fuel economy; EUI reflects the rate of energy use of a school site. LEAs can easily conduct their own benchmarking process. Complete, detailed benchmarking instructions are found in Appendix D. The Energy Commission has incorporated Appendix D methodology to create a benchmarking calculator embedded into the energy expenditure plan form. Benchmarking results will include 1) total energy cost/square footage/year and 2) annual total Kbtus[5]/square footage/year.

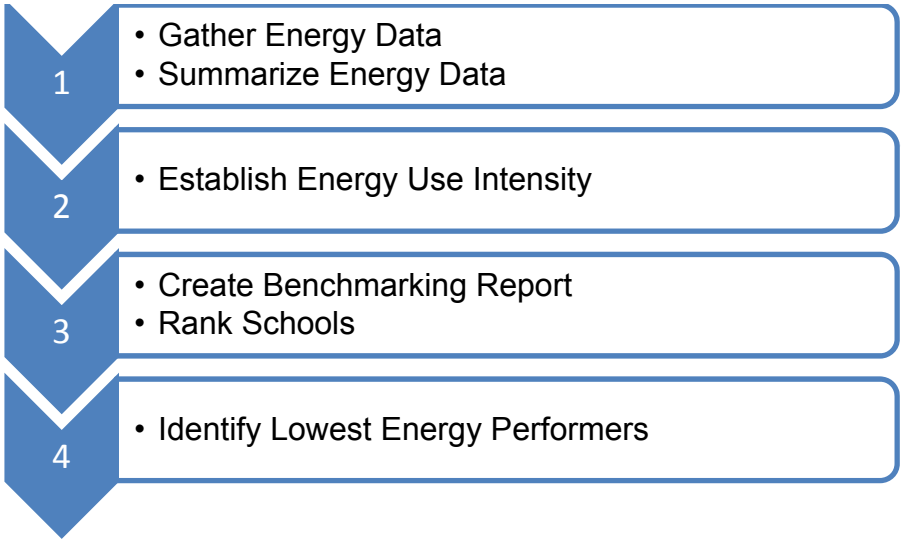
LEAs only need to benchmark school sites where Proposition 39 funds will be used for eligible energy projects. LEAs can choose to benchmark more school sites if that is beneficial to their energy planning and school site selection process.

5 One thousand British thermal units.

The Benchmarking Process

The benchmarking process begins with data-gathering and concludes with a prioritized plan for implementing eligible energy projects.

Figure 1: Benchmarking Process



Source: California Energy Commission

Energy Benchmarking Resources and Tools

In addition to the method presented in the appendices, some benchmarking tools such as the U.S. Environmental Protection Agency's ENERGY STAR® "Portfolio Manager" and Lawrence Berkeley National Laboratory's "Energy IQ" are also available for free. Other acceptable benchmarking systems may be available from your local utilities, ASHRAE, or private building simulation vendors. Any of these benchmarking models can be used to determine the EUI of a facility. While the capabilities and functions of these benchmarking tools are different, each is a means to identify and prioritize school site energy use and potential eligible energy projects.

Step 3: Eligible Energy Project Prioritization Considerations

Public Resources Code Section 26235(e)(1-11) requires that "each participating LEA shall prioritize the eligible projects within its jurisdiction taking into consideration, as applicable, at least the following factors:

(1) The age of the facility, as well as any plans to close or demolish the facility.

(2) The proportion of pupils eligible for funds under Title I of the federal No Child Left Behind Act of 2001 (20 U.S.C. Sec. 6301 et seq.) at a particular school site.

(3) Whether the facilities have been recently modernized.

(4) The facilities' hours of operation, including whether the facilities are operated on a year-round basis.

(5) The school's energy intensity as determined from an energy rating or benchmark system such as the United States Environmental Protection Agency's Energy Star system or other acceptable benchmarking approach that may be available from local utilities, the American Society for Heating, Refrigerating, and Air-Conditioning Engineers, Inc., or reputable building analysis software as is appropriate to the size, budget, and expertise available to the school.

(6) The estimated financial return of each project's investment over the expected life cycle of the project, in terms of net present value and return on investment.

(7) Each project's potential for energy demand reduction.

(8) The anticipated health and safety improvements or other non-energy benefits for each project.

(9) The individual or collective project's ability to facilitate matriculation of local residents into state-certified apprenticeship programs.

(10) The expected number of trainees and direct full-time employees likely to be engaged for each LEA's annual funding commitments based upon a formula to be made available by the Energy Commission or California Workforce Investment Board. The formula shall be stated as labor intensities per total project dollar expended and may differentiate by type of improvement, equipment, or building trade involved.

(11) The ability of the project to enhance workforce development and employment opportunities, use members of the California Conservation Corps, certified local conservation corps, Youth Build, veterans, Green Partnership Academies, nonprofit organizations, high school career technical academies, high school regional occupational programs, or state-certified apprenticeship programs, or to accommodate learning opportunities for school pupils or at-risk youth in the community.

Each LEA shall consider these 11 factors when considering energy measures and prioritizing eligible energy projects for program awards. For all energy expenditure plans, an LEA is required to certify that it considered these factors. (Factors 4-7 listed above are built into the benchmarking requirement in Step 2 and the cost-effectiveness requirement in Step 6.)

Step 4: Sequencing of Facility Improvements

> Public Resources Code Section 26235(a)(3)(C) states the Energy Commission shall establish guidelines for sequencing of facility improvements.

The Energy Commission recommends LEAs use the eligible energy project sequencing approach described below for reducing energy use. This means implementing energy efficiency and demand reduction projects first.

Sequencing Approach

Outlined below is the sequencing order when considering facility improvements:

1) First, maximize energy efficiency (for example, installing daylighting or energy management systems).
2) Next, consider clean energy generation (for example, solar panels, solar water heating, wind, or an efficient biogas-fueled fuel cell or combined heat and power system).
3) Finally, consider nonrenewable projects (such as an efficient natural gas-fueled fuel cell or combined heat and power project system).

Step 5: Eligible Energy Measure Identification

> Public Resources Code Section 26235(a)(3)(B) states that the Energy Commission shall establish guidelines for "the use of energy surveys or audits to inform project opportunities costs and savings."

LEAs shall use any of the three methods to identify eligible energy project: 1) an energy survey, 2) an ASHRAE Level 2 energy audit, or 3) data analytics. For any approach, the Energy Commission reserves the right to assess the reasonableness of any project cost and energy savings estimates and may request additional information from the LEA to support the funding request. If an LEA has an existing energy survey, ASHRAE Level 2 energy audit, or data analytics report completed within the past five years, it may use this information to identify eligible energy projects. However, project costs and energy savings can change over time; therefore, LEAs may consider updating an energy audit prior to submitting their energy expenditure plan(s).

Method 1: Energy Survey

Some LEAs may have energy efficiency opportunities that do not require an ASHRAE Level 2 energy audit. These could include simple energy efficiency measures such as retrofitting fluorescent light fixtures or adding occupancy sensor control to lighting systems. In these cases, the LEA may choose to use the Energy Commission's energy savings calculator tools to estimate the energy savings of one or various energy efficiency measures. The Energy Commission will

post online the energy savings calculator tools upon adoption of the guidelines. Appendix B is a list of energy efficiency measures for which the Energy Commission will provide the online savings calculator tools.

LEAs using Method 1 are still expected to survey their buildings or facilities, identify their energy efficiency measures and submit project information in their energy expenditure plans (see Step 7), such as:

- A description of the proposed energy efficiency measures and the buildings or facilities that will be improved by these measures.
- A description of the existing energy-using equipment (that is, type, age of equipment, size, number of units, and so forth).
- Energy savings estimates from the online calculator tool.
- A proposed budget detailing the project hard and soft costs.

Method 2: ASHRAE Level 2 Energy Audit

Some complex energy efficiency measures will likely need an ASHRAE Level 2 energy audit to clearly identify project cost and estimated energy savings. An LEA may choose to select a third-party contractor, utility program audit, or LEA staff energy manager to complete an ASHRAE Level 2 energy audit. Method 2 must include:

- A description of the proposed energy efficiency measures and the buildings or facilities that will be improved by these measures.
- A description of the existing energy-using equipment (that is, type, age of equipment, size, number of units, and so forth).
- All calculations and assumptions to support the technical feasibility and energy savings of the recommended energy efficiency measures.
- A proposed budget detailing all project costs.

Method 3: Other Energy Efficiency Measure Screening Tools: Data Analytics

Public Resources Code Section 26235(b) states that "the Energy Commission shall allow the use of data analytics of energy usage data where possible in the energy auditing evaluation inventorying measuring and verification of projects. To ensure quality of results data analytics providers shall receive prior technical validation by the Energy Commission a local utility or the Public Utilities Commission."

Data analytics refers to what is typically called a "no-touch" or Web-based "virtual" energy audit assessment. A data analytics provider evaluates energy usage of a facility from metered data and other public information sources, such as digital photographs, satellite, and aerial images, and provides a benchmarking report with energy efficiency measure recommendations without ever entering the facility. This technique combines the benchmarking process and the energy survey described in Method 1 above. LEAs may want to consider a no-touch audit as a tool to

help them prioritize energy efficiency measures. This is a new area of building energy science, and the Energy Commission and the California Public Utilities Commission do not currently offer technical validation and have not set standards. The Energy Commission plans to develop standards for data analytics. To expend Proposition 39 award funds for these data analytics, an LEA must provide documentation of prior technical validation of the technology by an electric and/or gas utility. In addition, an LEA can provide documentation that a data analytics provider has undergone numerous detailed evaluations such as, technical review by an electric and/or gas utility, as part of a competitive bid process or product evaluation. An LEA may also provide documentation of U.S. federally-funded scaled comparison to on-site audits. If such an analytics data provider has been deemed as comparable and/or providing complementary results to an on-site audit, an LEA may provide documentation for approval of the use of such analytics provider.

Step 6: Cost-Effectiveness Determination

Public Resources Code Section 26206(c) states, "All projects shall be cost effective: total benefits shall be greater than project costs over time." Section 26235(a)(3)(D) states the Energy Commission shall establish guidelines for "methodologies for cost-effectiveness determination."

An eligible energy project can be a portfolio of bundled eligible energy measures at a school site. An eligible energy project must achieve a minimum savings-to-investment ratio (SIR) of 1.05 to be approved for a Proposition 39 award. This ratio compares the investment the LEA will make now, with the amount of dollar savings the LEA will obtain from the energy savings of the eligible energy project. For every dollar invested in the eligible energy project, the LEA will accrue $1.05 in savings. The SIR is based on the cumulative present value of the savings benefits realized over the life of the eligible energy project. Related performance, health and safety improvements are an allowable project cost as long as the combined cost of the eligible energy project and related health and safety improvement costs result in a minimum SIR of 1.05.

Energy efficiency measures may have an SIR lower then 1.05, but the eligible energy project (portfolio of bundled energy measures) at each school site, submitted in one energy expenditure plan, must achieve a minimum SIR of 1.05.

To determine the SIR, the energy expenditure plan form includes the Energy Commission SIR calculator. The Energy Commission SIR calculator will provide the SIR for each energy efficiency measure, as well as a combined SIR value for the eligible energy project. The SIR calculator will be available as part of the energy expenditure plan form at the Energy Commission's Proposition 39 website at www.energy.ca.gov/efficiency/proposition39/index.html.

To use the SIR calculator, an LEA will need the following input values for each proposed energy efficiency measure:

1) Annual energy savings (kWh, therms, gallons)
2) Demand savings (kW)
3) Annual energy cost savings
4) Project installation cost
5) Rebates/other financial incentives
6) Other matching grants (Any matching grant funds [not including Proposition 39 awards] used to finance the project. This is funding that does not need to be repaid.)

Appendix E explains the SIR calculation, including all assumptions built into the SIR formula.

Appendix F illustrates the effective useful life (in years) for energy measures.

Appendix G discusses power purchase agreement SIR calculation considerations.

Step 7: Complete and Submit an Energy Expenditure Plan(s)

A: Submission of Energy Expenditure Plan(s)

The energy expenditure plan is the application an LEA uses to request Proposition 39 program award funds to implement proposed eligible energy projects. The energy expenditure plan includes all information specified in these *Guidelines*. LEAs must complete and submit an energy expenditure plan to the Energy Commission, and that energy expenditure plan must be approved by the Energy Commission for the LEA to receive Proposition 39 program award funds. The energy expenditure plan form will be available on the Energy Commission's website at http://www.energy.ca.gov/efficiency/proposition39/index.html.

In September 2013 and November for following fiscal years, the SSPI will announce each LEA's award for that current fiscal year. LEAs can find their annual Proposition 39 program allocation on CDE's website at http://www.cde.ca.gov/fg/fo/r14/prop39cceja13rfa.asp.

The Energy Commission offers flexibility to LEAs when submitting and organizing energy expenditure plans. Listed below are the various alternatives:

- **Annual award energy expenditure plan.** An LEA may submit an annual energy expenditure plan with eligible energy projects identified for the current fiscal year award. If the full award is not budgeted for in the energy expenditure plan, the balance of the award will remain available for future energy expenditure plan requests.

- **Multiple-year (bundled) award energy expenditure plan.** An LEA may submit an energy expenditure plan that includes a bundled multiyear award. This could include a five-year complete award energy expenditure plan. Based on the known first-year funding award, an LEA can estimate future yearly awards and submit an energy expenditure plan with eligible energy projects amounting to an estimated multiyear program award. This can include a complete five-year energy expenditure plan. The

LEA and the Energy Commission will annually review the multiyear plans to ensure the projects are still on track and will adjust the plan, if necessary.

LEAs shall submit their energy expenditure plan(s) and all project back-up documentation through the Energy Commission's website at http://www.energy.ca.gov/efficiency/proposition39/index.html. The Energy Commission will review energy expenditure plans as they are received. LEAs are encouraged to submit their completed energy expenditure plans as soon as possible to allow timely review and approval by the Energy Commission, so LEAs can meet targeted implementation schedules.

B: Energy Expenditure Plan Content

LEAs must apply to the Energy Commission as specified in the energy expenditure plan form and explained in the *Energy Expenditure Plan Handbook*, which the Energy Commission will make available after the final guidelines are adopted. LEAs are required to submit all eligible energy project information on a standard energy expenditure plan format created by the Energy Commission that will include all the elements described below.

The energy expenditure plan includes the following elements:

- Energy Planning Funds (if requested in 2013-14). A description of use of planning funds and a financial breakdown of expenditures.
- Consent for the LEA's utility provider(s) to release 12 months of historical energy billing data and ongoing billing data to the Energy Commission. This includes all utility accounts and locations of meters for all school sites within an LEA. The Energy Commission will post a data release authorization Form on its Proposition 39 webpage for LEA's to use in requesting the LEA's utility to submit usage data to the Energy Commission. The Form will specify the required fields, which include monthly data provided to the Energy Commission on an annual, fiscal-year basis by the end of each calendar year. The Energy Commission strong encourages LEAs to use this Form; should they choose to use a utility authorization, the LEA remains responsible for ensuring 1) there are no claims the data is confidential; 2) the correct data fields are requested; and 3) the authorization will remain effective for the release of data through 2023. **(STEP 1)**
- Benchmarking EUI for all school sites included on the energy expenditure plan. **(STEP 2)**
- Energy efficiency measures: Energy Expenditure Plan form that includes:
    1. 2013-14 (or current year) award amount and estimate of 2014-17 amount if the plan includes future years.
    2. Current energy usage (must include the 12 month total electric and gas utility energy usage). For example, if the LEA submits its first energy expenditure plan in fiscal year 2013-2014, it will total its utility usage data from fiscal year 2012-2013. This information is available from the LEA's billing records or can be obtained from the LEA's energy provider(s).

3. Energy efficiency measure(s) description. **(STEP 5)**
4. Estimated energy savings (must include supporting engineering analysis or Energy Commission calculator results). **(STEP 5)**
5. Estimated project cost (an itemized budget for the project that identifies all related costs and expenses). **(STEP 5** or contractor estimate)
6. Individual project backup documentation (from an energy audit or energy survey) **(STEP 5)**

- Energy training request (optional).
- Energy manager request (optional)
- Non-energy benefit project request, such as health and safety work or accessibility modifications related to the energy project. (optional)
- Job creation benefits estimation (see below and appendices, Exhibit H for calculation method).
- The energy expenditure plan will also include the following self-certifications:

  1. The LEA followed the *Proposition 39 Guidelines* regarding Eligible Energy Project Prioritization Considerations. **(STEP 3)**
  2. The LEA took into account the guidelines regarding Sequencing of Facility Improvements. **(STEP 4)**
  3. The LEA commits to use the funds for the eligible energy project(s) approved in its energy expenditure plan.
  4. The LEA commits that the information included in the application is true and correct to the best of the LEA's knowledge.
  5. The LEA commits that all California Environmental Quality Act (CEQA) requirements are completed.
  6. The LEA will obtain DSA project approval as applicable pursuant to California Code Regulations, Title 24.
  7. The LEA acknowledges that the expenditures are subject to financial audit requirements (Public Resources Code Sections 26206(e) and 26240(g)).
  8. The LEA commits to complying with all reporting requirements.

- The energy expenditure plan will also include the following leased facility certification:

  1. If an LEA leases a facility or building that does not have a separate meter or an LEA leases a facility or building and the lease payment includes the utility cost, the Expenditure Plan must include a building owner written certification that commits the building owner to transferring the cost savings

of the energy improvements to the LEA tenant, either through a reduced lease payment, or other form of monetary reimbursement.

Job Creation Benefits Estimation

Public Resources Code Section 26235(e) states, "Each participating LEA shall prioritize the eligible projects within its jurisdiction taking into consideration, as applicable, at least the following factors:"

Public Resources Code Section 26235(e)(9) states that LEAs shall prioritize eligible projects taking into consideration, among other factors, "[t]he individual or collective project's ability to facilitate matriculation of local residents into state-certified apprenticeship programs."

Public Resources Code Section 26235(e)(10) states that an additional factor is "[t]he expected number of trainees and direct full-time employees likely to be engaged for each LEA's annual funding commitments based upon a formula to be made available by the Energy Commission or California Workforce Investment Board. The formula shall be stated as labor-intensities per total project dollar expended, and may differentiate by type of improvement, equipment, or building trade involved."

The California Labor and Workforce Development Agency, the California Workforce Investment Board (CWIB), the Energy Commission, and other state agencies collaborated to provide the information about preparing energy expenditure plans that contain an estimate of job creation and workforce effects of Proposition 39 projects.

Exhibit H in the appendices includes a simple step-by-step questionnaire for estimating job creation benefits. The Energy Commission has incorporated a job creation benefits estimation calculator embedded into the energy expenditure plan.

C: Energy Expenditure Plan Review Process

The Energy Commission is required to review and approve every LEA's energy expenditure plan. The Energy Commission will screen each energy expenditure plan for energy project eligibility criteria and completeness, and then evaluate the proposal for technical and financial accuracy and reasonableness. No other criteria or scoring will be used to evaluate energy expenditure plans. Energy Commission staff will process the energy expenditure plans on a first-come, first-served basis.

Each energy expenditure plan will be reviewed as follows:

1) Energy Expenditure Plan Completeness: Energy Commission staff will review the energy expenditure plan for completeness pursuant to Step 7B above. All applications must contain an analysis of eligible energy project cost and supporting calculations of estimated annual energy and cost savings. If energy audits were performed, the analysis in energy audits must clearly state all assumptions used and the basis for those assumptions. If the energy expenditure plan is not complete, Energy Commission staff will contact the LEA to explain the reason for the determination and then request the required additional information in writing. The Energy Commission will return the energy expenditure plan to the LEA if additional information is not received within the time frame specified in the written request. When the energy expenditure plan is deemed complete, it will be recorded as "received," and the Energy Commission will continue the review process.

2) Project(s) Eligibility Criteria: A complete energy expenditure plan will be reviewed to determine if it meets the project(s) SIR eligibility criteria.

3) Technical and Financial Reasonableness: Any energy expenditure plan meeting the energy project eligibility criteria will be screened for technical and financial reasonableness. The Energy Commission reserves the right to review all supporting engineering analyses to ensure accuracy of cost and energy savings estimates and reasonableness of assumptions used in calculations.

Energy Expenditure Plan Approval Process

After an energy expenditure plan passes all three review phases and is approved, the Energy Commission will notify the LEA and the CDE and will post a notice of the approval on the Energy Commission's Proposition 39 Program Web page. About once every quarter the CDE will process an apportionment for the total approved Proposition 39 funds since the last payment period. This process will take about a month. Upon completion, the apportionment package will be submitted to the State Controller's Office, which will draw warrants in favor of county treasurers in roughly three to four weeks. County treasurers are then requested to deposit immediately the amount received to the appropriate funds of the county superintendents of schools for further distribution to school districts and charter schools.

Both the CDE and the Energy Commission will provide fiscal information on their respective websites, including total awards, payments made, and remaining balances for all LEAs.

Energy Expenditure Plan Disapproval Process
Energy expenditure plan applications *may* be disapproved for funding and require resubmission if:

- The application does not contain all the requested information.
- The application is deemed incomplete, and the requested additional information is not received within the time frame specified in the Energy Commission's written notification of incompleteness.
- The energy project is deemed ineligible.
- The eligible energy project(s) does not meet the SIR of 1.05.

If the Energy Commission disapproves an energy expenditure plan, the Energy Commission will electronically return the energy expenditure plan to the LEA, along with the reason(s) for disapproving the plan and an explanation of how the problems may be remedied, for correction and resubmission.

Petition of Reconsideration of Energy Expenditure Plan Denial; Appeal of Executive Director's Decision

An LEA may petition the office of the Executive Director for reconsideration if an energy expenditure plan is denied. The petition for reconsideration shall be submitted electronically to the Energy Commission docket for this proceeding (Docket # 13-CCEJA-01) with any supporting documentation within 30 days of the date the notice of denial is e-mailed to the LEA. The petition shall specify why the LEA believes the denial of the energy expenditure plan is improper given the eligibility criteria in the *Proposition 39 Guidelines*, explain any supporting documentation filed with the petition, and identify the remedy sought. Within 30 days of receiving a complete petition, the Office of the Executive Director shall issue a decision on the petition and provide it to the LEA electronically.

If an LEA disagrees with the decision of the Energy Commission's Office of the Executive Director, the LEA may appeal the decision to the Energy Commission. The appeal must be filed within 15 days of the date the decision of the Office of the Executive Director is e-mailed to the LEA and shall consist of a letter of appeal stating why the decision is unacceptable, a copy of the petition for reconsideration and any supporting documentation, and the decision of the Office of the Executive Director. The appeal shall be sent to the Commission's Public Adviser at publicadviser@energy.ca.gov.

Within 45 days of receiving the letter of appeal, the Public Adviser shall arrange for the appeal to be presented to the Energy Commission at a regularly scheduled business meeting. The Public Adviser shall inform the appealing party in writing of the business meeting date and the procedures for participating in the business meeting. The appealing party shall be responsible for presenting the appeal to the Energy Commission during the business meeting. Unless otherwise determined during the business meeting, the Commission shall determine the appeal during the business meeting. Energy Commission staff may present a response to the appeal when the matter is under consideration by the Energy Commission.

Step 8: Energy Project Tracking and Reporting

Public Resources Code Section 26240(b) requires that "[a]s a condition of receiving funds from the Job Creation Fund, not sooner than one year but no later than 15 months after an entity completes its first eligible project with grant, loan, or other assistance from the Job Creation Fund, the entity shall submit a report of its project expenditures to the Citizens Oversight Board created pursuant to Chapter 3 (commencing with Section 26210)."

Public Resources Code Section 26240(c) requires that "[i]f an LEA completes more than one project, the required information for a second and any subsequent project shall be submitted no later than the first full quarter following project completion."

LEAs must report between 12-15 months after the completion of all eligible energy projects on an energy expenditure plan. An LEA shall submit a report of project expenditures to the Citizens Oversight Board (COB) and a copy to the Energy Commission. The Energy Commission intends to create an automated online program reporting system. This system will allow LEAs to submit the required eligible energy project information in a standard format to be collected in the Energy Commission's publicly accessible database and will also generate a standard final project report LEAs must submit to the COB.

The Energy Commission, in partnership with the California Labor and Workforce Development Agency, intends to create an online reporting mechanism for LEAs and contractors to submit required jobs and workforce data for all workers employed on eligible projects.

Annual Reports

LEAs are required to submit an annual progress status report for each approved energy expenditure plan to the Energy Commission, until all eligible energy measures within an energy expenditure plan are completed. The Energy Commission intends to create a simple annual report template, which will be available on the Energy Commission's Proposition 39 Web page.

Final Reports

Public Resources Code Section 26240(b)(1-7) requires that "[t]o the extent practical, this report shall contain information on all of the following:

(1) The total final gross project cost before deducting any incentives or other grants and the percentage of total project cost derived from the Job Creation Fund.

(2) The estimated amount of energy saved, accompanied by specified energy consumption and utility bill cost data for the school or site where the project is located.

(3) The nameplate rating of new clean energy generation installed.

(4) The number of trainees.

(5) The number of direct full-time equivalent employees and the average number of months or years of utilization for each of these employees.

(6) The amount of time between awarding of the financial assistance (that is, receiving the approved energy expenditure plan award deposit) and the completion of the project or training activities.

(7) The facility's energy intensity before and after project completion, as determined from an energy rating or benchmark system."

LEAs must include, to the extent practical, the above elements in the final report for each completed energy expenditure plan. LEAs are required to submit all completed eligible energy project information on a standard final report format created by the Energy Commission. In addition to the required final report information, LEAs must also follow the guidelines below for reporting eligible energy project energy savings and job creation benefits.

Energy Savings Reporting Requirements

Public Resources Code Section 26235(a)(1) states the Energy Commission shall establish guidelines for "[s]tandard methods for estimating energy benefit including reasonable assumptions for current and future costs of energy and guidelines to compute the cost of energy saving as a result of implementing eligible projects funded by this chapter."

LEAs are required to report the actual energy savings 12-15 months after the completion of the eligible energy projects. This information will be reported only once for an energy expenditure plan. Therefore, 12-15 months after the completion of the last eligible energy measure within an energy expenditure plan, an LEA is required to report on the energy savings.

The actual annual energy savings is based on the difference between annual energy use before an eligible energy project(s) is installed and the annual energy use after the eligible energy project installation.

The energy savings report is required at two levels: 1) school site level energy savings and 2) individual eligible energy measure level energy savings. School site energy savings is defined as the total energy savings for a school site. Eligible energy measure level energy savings is the energy savings realized by a specific eligible energy measure. Details for both levels are below.

1. Energy Savings at the School Site Level (All energy projects at a school sites):

   All LEAs will have the utility energy usage and cost data reported from the 12-month period prior to the submission of the energy expenditure plan. (Step 1: Electric and Gas Usage/Billing Data requirement). Next, summarize utility energy usage and cost data for 12 months after project completion. LEAs can calculate pre- and post retrofit energy use EUI as described in Step 2: Benchmarking or Energy Rating System or use other benchmarking tools including ENERGY STAR'S "Portfolio Manager" and data analytics tools to provide this EUI information.

2. Energy Savings at the Energy Measure Level:

   Energy savings for an individual energy measure shall be reported by choosing any one of the four methods (A-D) described below. For example, simple eligible energy measures should require minimal time and effort to determine the energy savings by choosing either option A or B below. An LEA can report the energy savings for an energy measure, choosing any one of the following methods:

   A. Utility Incentive Completion Report. For energy efficiency measures that receive utility incentives, the final estimated energy savings report requirements of the utilities can be used to determine the actual energy savings.

   B. Energy Commission Energy Savings Calculators Report. An LEA may choose to use the Energy Commission energy savings calculators to estimate the actual energy savings for each eligible energy measure. These are the same calculators offered in the energy expenditure plan phase that provided energy savings estimates for less-complex eligible energy measures.

   C. LEA's own final energy savings report. An LEA can calculate its own energy savings for an eligible energy measure using data from an energy management system, short-term monitoring (or data logging), and engineering calculations for each eligible energy measure. This final energy savings report can be submitted as the energy savings report.

D. Third-party final energy savings report. In some cases, an LEA may choose to hire an independent consultant to conduct the detailed final energy savings report for each energy measure or for continuous monitoring. A third party-prepared final energy savings report or commissioning report can also be used for this purpose.

Job Creation Benefits Calculation

The CWIB, in consultation with the Energy Commission, must use reports submitted by LEAs to the COB to quantify total employment affiliated with funded projects. These reports will include new trainee, apprentice, and full-time employees in a format to be provided by the CWIB. The CWIB is then required to prepare an annual report with this information to submit to the COB.

LEAs will produce final reports that include jobs and workforce data for all workers employed on eligible projects, as previously described. Final reports will provide summary-level data based on information submitted via the online reporting mechanism developed by the Energy Commission and the Labor and Workforce Development Agency.

The Labor and Workforce Development Agency and the Department of Industrial Relations will work with LEAs to support reporting by contractors and subcontractors working on eligible projects. This may include technical assistance, development of sample contract and reporting language, and other mechanisms to support the on –line reporting system being developed.

Audit

Public Resources Code Section 26206(e) states, "All projects shall be subject to audit."

Public Resources Code, Section 26240(h)(1) states, "The Superintendent of Public Instruction shall require local education agencies to pay back funds if they are not used in accordance with state statute or regulations, if a project is torn down or remodeled, or if the property is deemed to be surplus and sold prior to the payback of the project."

The CDE will use its standard process to collect LEA noncompliant Proposition 39 expenditures.

Energy Expenditure Plan Implementation Changes

Energy measure changes are sometimes unavoidable. If an LEA changes an eligible energy project after the Energy Commission has approved its energy expenditure plan and the SSPI has distributed funding, a revised energy expenditure plan may be required. Any significant

change in the approved energy expenditure plan will require "change of scope" approval. Significant changes include:

- Adding an energy measure not included in the approved energy expenditure plan.
- Deleting an energy measure in the approved energy expenditure plan.
- Eligible energy project cost increase by more than 15 percent.
- A change of more than 15 percent in the approved equipment quantity installed. For example, installing a larger or smaller number of lighting fixtures to adjust to conditions found during retrofits would require a "change of scope approval" if the number of fixtures is increased or decreased by more than 15 percent.
- Relocating an energy measure to a different school site. For example, retrofitting HVAC units at School A, when the energy expenditure plan indicated the HVAC units for School B.

Energy Project Construction Compliance Requirements

Energy Efficiency Project Construction Compliance Requirements — the Division of the State Architect (DSA)

DSA provides design and construction oversight for school districts and community colleges. To ensure buildings are safe and compliant with accessibility standards, the DSA must review and approve public school construction for compliance with the *California Code of Regulations*, Title 24, the California Building Code (CBC), when alterations or additions are made to existing buildings.

Certain eligible energy measures funded by Proposition 39 might be exempt or excluded from DSA review and approval for structural safety, depending on the scope of work and estimated construction cost. In addition, some eligible energy projects may not be required to include accessibility upgrades outside the scope of work area. To help LEAs determine the various requirements for eligible energy measures, and possible exemptions, the DSA provides resources and guidelines on its website at http://www.dgs.ca.gov/dsa/Programs/progSustainability/prop39.aspx .

In cases where DSA review is required, the DSA will verify that the original building construction was certified before it can issue approval of plans for alterations on that building. DSA Regional Office staff can help LEAs identify whether a particular building is suitably certified and what steps are required to achieve certification.

LEAs are advised to consider DSA requirements early in their planning for Proposition 39-eligible energy projects and contact the appropriate DSA Regional Office with jurisdiction over the area in which the project is located.

DSA Regional Offices: http://www.dgs.ca.gov/dsa/AboutUs/contact.aspx.

DSA Project Submittal Planning:
http://www.dgs.ca.gov/dsa/Programs/progProject/projsubmitplanning.aspx

Contracts

Public Resources Code Section 26206(d) states, "All projects shall require contracts that identify the project specifications, cost, and projected energy savings."

All contracts need a clear and accurate description of the eligible energy project, including material, products, or services to be procured, and a budget that includes cost and an estimate of the projected energy savings.

Public Resources Code Section 26235(a)(2) states that the *Proposition 39 Guidelines* shall address "[c]ontractor qualifications, licensing, and certifications appropriate for the work to be performed, provided that the Energy Commission shall not create any new qualification, license, or certification pursuant to this subparagraph."

Public Resources Code Section 26235(c) states, "A community college district or LEA shall not use a sole source process to award funds pursuant to this chapter. A community college district or LEAs may use the best value criteria as defined in paragraph (1) of subdivision (c) of Section 20133 of the Public Contract Code to award funds pursuant to this chapter."

The guidelines defer to the LEA's own procurement regulations and procedures, as long as they reflect applicable state and local laws and regulations and are not in conflict with the minimum legal standards specified above.

Public Works Project Award Notification

Existing law requires an LEA to provide notice to the Department of Industrial Relations within five days from the date a public works contract is awarded for:

1. Public works projects that are over $30,000 and contain apprenticeship crafts or;
2. Public works projects under $30,000 that are subject to Compliance Monitoring Unit (CMU) regulations, available here: http://www.dir.ca.gov/dlse/cmu/cmu.html

The completion and submission of the PWC 100 form fulfills the required public works project award notification to both the Division of Apprenticeship Standards [Labor Code sec. 1773.3] (replacing former DAS-13 notification) and the Division of Labor Standards Enforcement Public Works Compliance Monitoring Unit [8 Cal. Code Reg. sec. 16451(a)]. The PWC 100 application is available online at https://www.dir.ca.gov/pwc100ext/

LEAs should resubmit the PWC 100 if updates or changes occur after initial submission.

No Retroactive Funding of Projects

Proposition 39 funding may be used only to pay for eligible energy projects installed on or after the date guidelines are approved at an Energy Commission business meeting. An eligible energy project award for Proposition 39 funding, as distinguished from energy planning funds, can be used to pay only for eligible energy projects approved in an energy expenditure plan by the Energy Commission. If eligible energy projects are implemented prior to the *Proposition 39 Guidelines* approval date, those eligible energy projects are *not eligible* for retroactive Proposition 39 funding. In other words, implementing eligible energy projects after July 1, 2013, but before the guidelines are approved, are *not eligible* for retroactive program funding.

CHAPTER 3:
Additional Proposition 39 State Resources

Energy Conservation Assistance Act − Education Subaccount: Loan and Technical Assistance Program

SB 73 transfers $28 million from the Job Creation Fund to the Energy Conservation Assistance Act, Education Subaccount (ECAA-Ed). Of that amount, about 90 percent will be used to provide low-interest or no-interest loans to LEAs and community college districts through the ECAA Loan Program. About 10 percent will be used by the Bright Schools Program to provide technical assistance grants to qualifying LEAs and community college districts needing support with eligible energy measure identification and planning.

ECAA-Ed (Proposition 39) Loan Program

The Energy Commission implements the ECAA-Ed Program pursuant to Public Resources Code Section 25410, et seq., and the Title 20 of the California Code of Regulations, Sections 1650 – 1655. The ECAA-Ed funds are available to fund no-interest rate loans for eligible energy projects. These projects are required to generate energy cost savings sufficient enough to allow the loan principal and all accrued interest to be repaid to the Energy Commission within a maximum of 20 years. The simple payback is 20 years if the interest rate is set at 0 percent. The Energy Commission Program Opportunity Notice for ECAA-Ed loans will specify the interest rate, repayment period (includes principal and interest), the maximum simple payback period, and requirements on building ownership. ECAA-Ed funding cannot pay for PPA financed clean energy projects installations.

Bright Schools Technical Assistance Grant Program

LEAs and community college districts may apply to the Bright Schools Program for technical assistance in planning how to best use Proposition 39 program award funds for eligible energy measures. Assistance is provided by the Energy Commission on a first-come, first-served basis. Energy Commission staff and consultants provide the energy technical assistance, including energy audits and eligible energy measure recommendations. The grant is not provided in cash, but rather in the form of engineering and design assistance provided at no charge by the Energy Commission. This program is implemented pursuant to Public Resources Code Section 25416(d).

Eligible Entities

LEAs and California Community College Districts (CCCDs) are eligible for ECAA-Ed loans and grants for technical assistance.

ECAA-Ed: Eligible Energy Projects

To qualify for an ECAA-Ed loan, the following requirements must be satisfied:

1. Projects must meet the eligibility requirements for an ECAA-Ed loan as specified in Public Resources Code Section 25410, et seq., and the Energy Commission's regulations in Title 20 of the California Code of Regulations, Sections 1650 – 1655.

2. Loan applicants must satisfy all requirements as specified in the Energy Commission Program Opportunity Notice.

3. Projects must be technically and economically feasible.

4. Proposition 39 program-funded loans, including principal and interest, must be repaid by the estimated annual energy cost savings achieved of the projects, with a maximum payback period of 20 years.

5. The term of the loan may not exceed the useful life of the loan-funded equipment or the lease term of the building in which the loan-funded equipment will be installed.

6. If the LEA is located in a privately owned, leased facility, the LEA must adhere to the requirements for Eligibility of LEAs in Leased Facilities in Chapter 2.

Examples of eligible energy projects include, but are not limited to:

- Lighting systems.
- Heating and air-conditioning modifications.
- Pumps and motors.
- Building insulation.
- Clean energy generation (PPAs not eligible)

Application Process

ECAA-Ed Loans

LEAs and CCCDs may apply for funding as specified in the Energy Commission's Program Opportunity Notice. Complete applications are evaluated and recommended for funding as specified in the Program Opportunity Notice. To request ECAA-Ed loan funding, use the application forms on the Energy Commission's website at http://www.energy.ca.gov/efficiency/financing/index.html.

Technical Assistance Grants

LEAs and CCCDs may apply to receive technical assistance from the Energy Commission through the Bright Schools Program. To request technical assistance, use the application forms

on the on the Energy Commission's website at http://www.energy.ca.gov/efficiency/brightschools/index.html.

California Workforce Investment Board Grant Program

The California State Workforce Investment Board (CWIB) will implement energy efficiency-focused "earn-and-learn" job training and placement programs targeting disadvantaged job seekers. The goal of this program will be to train nearly 500 Californians for entry-level employment and create career pathways that are driven by public and private investment in energy efficiency and green building standards. Funded eligible energy projects will create opportunities for disadvantaged youth and veterans to improve their qualifications for energy-related occupations and qualify for state-certified apprenticeship programs, community college career programs, and direct job placement.

Key program elements include:

- Preapprenticeship training aligned with local building trades councils and based on nationally certified Multi-Craft Core Curriculum.
- Training and placement requirements developed in alignment with energy efficiency work opportunities.
- Regional partnerships and resource and program alignment among local workforce investment boards, employers, organized labor, K-12, community colleges, California Conservation Corps, and community-based stakeholders.
- Rigorous performance and evaluation methods to ensure program efficacy and continuous improvement; development of sustainability model to increase scale and/or replication of successful programs.

For additional information on the CWIB's Proposition 39 program, please go to http://www.cwib.ca.gov/.

California Conservation Corps

With funding from the California Budget Act of 2013-14, and as part of California's plan to save energy and create jobs, the CCC will provide energy services to public schools for the fiscal years 2013-14 through 2017-18.

The CCC is a state agency putting young men and women, ages 18-25, to work on natural resource projects. Since its earliest days, these projects have included energy conservation work, from low-income home weatherization to solar panel construction to, most recently, energy surveys and retrofitting convenience stores through the EnergySmart Jobs program.

The CCC may assist LEAs in:

1) ***Conducting energy surveys to assess building conditions, identify energy efficiency opportunities, and establish baseline use***. Teams of trained young adults, working under the supervision of professional CCC staff, will visit schools to collect "whole building" energy use data in conformance with the Energy Commission's *Proposition 39 Guidelines*. Surveys will be provided to qualifying K-12 schools at no or low cost.

2) ***Implementation of basic energy efficiency measures***. As part of the project implementation, the CCC will have crews trained to directly install and/or help install basic energy efficiency measures such as lighting replacement, "occupancy" detectors for lighting, and "smart" power strips.

The Proposition 39 investment in schools is also an investment in the CCC members as they prepare to enter the state's workforce. Through their work, the corps members will gain hands-on training, certificated technical education, and work experience designed to increase employment opportunities in green technology fields.

The CCC may extend this learning opportunity to schools by connecting with service learning, science classes, environmental clubs or career academy programs.

To learn more about the CCC's Proposition 39 program call the CCC Energy Corps phone number: (530) 645-9974 or e-mail energycorps@ccc.ca.gov.

For additional information on the CCC's Proposition 39 program, please go to http://www.ccc.ca.gov/work/programs/prop39/Pages/default.aspx.

APPENDICES

Appendix A: **Proposition 39 Implementation Program 2013-14 Funding Allocation for Energy Projects**

Appendix B: **Energy Savings Calculators**

Appendix C: **Proposition 39 Funding Pathway Example**

Appendix D: **Benchmarking Process**

Appendix E: **Saving-to-Investment Ratio (SIR) Calculation**

Appendix F: **Effective Useful Life for Energy Measures in Years**

Appendix G: **Power Purchase Agreement SIR Calculation Considerations**

Appendix H: **Estimating Job Creation and Workforce Development**

Appendix I: **Definitions**

Appendix J: **List of Acronyms**

APPENDIX A:
Proposition 39 Implementation Program
2013-14 Funding Allocation for Energy Projects

<table>
<tr><td rowspan="5">Majority of Funding for Awards to Local Educational Agencies (LEAs)

($428 million)</td><td rowspan="4">89% for K-12

($381 million)</td><td rowspan="2">85% of funds based on prior year average daily attendance (ADA)

(~$324 million)</td><td>$15,000 for LEAs with 100 or fewer ADA, plus FRPM</td><td rowspan="4">• Supports deeper energy retrofit projects that will help ensure greater long-term energy savings and additional job creation.
• Allows small districts (with ADA of 1,000 or fewer) to bundle two years of funding for larger energy projects, if requested in writing to CDE by August 1
• Requires districts with funding over $1 million to use 50% of their award on large projects (defined as $250,000+)</td></tr>
<tr><td>Award based on ADA or $50,000,whichever is greater, for LEAs with more than 100 and 1,000 or less ADA, plus FRPM</td></tr>
<tr><td rowspan="2">15% of funds based on prior year eligibility for free and reduced-priced meals (FRPM)

(~$57 million)</td><td>Award based on ADA or $100,000, whichever is greater, for LEAs between 1,000 and 2,000 ADA, plus FRPM</td></tr>
<tr><td>Award based on ADA for LEAs of 2,000 or more ADA, plus FRPM</td></tr>
<tr><td>11% for CCDs

($47 million)</td><td colspan="3">Community colleges districts (CCD) represent 112 colleges, and funds are allocated at the discretion of the Chancellor</td></tr>
<tr><td>$28 million</td><td colspan="2">California Energy Commission Energy Conservation Assistance Act – Education Subaccount: Loan and Technical Assistance Grant Program</td><td colspan="2">K-14 financing and technical assistance
Financing assistance includes low- or zero-interest loans</td></tr>
<tr><td>$3 million</td><td colspan="2">California Workforce Investment Board</td><td colspan="2">Competitive grants for community-based organizations and other workforce training organizations preparing veterans or disadvantaged youth for employment</td></tr>
<tr><td>$5 million</td><td colspan="2">California Conservation Corps</td><td colspan="2">Funding to perform energy surveys and other energy conservation-related activities</td></tr>
</table>

Sources: California State Budget – 2013-14, Senator Kevin de León and the California Energy Commission

APPENDIX B: Energy Savings Calculators

The projects listed below have energy savings calculators available on the Energy Commission's Proposition 39 program Web page at
http://www.energy.ca.gov/efficiency/proposition39/index.html

Lighting Energy Efficiency Measures:

1. Replace incandescent light with compact fluorescent (CFL)
2. Replace incandescent/down light/flood with light-emitting diode (LED) light
3. Replace incandescent Exit Sign with LED Exit sign
4. Replace CFL Exit Sign with LED Exit sign
5. Convert T12 fluorescent lamps to T8 with electronic ballast
6. Convert T12 or T8 fluorescent lights to linear LED lamps
7. Replace 32 Watt T8 lamps with 28 Watt T8 Lamps
8. Replace exterior mercury vapor lights with induction or LED lights
9. Replace exterior high pressure sodium lights with induction or LED lights
10. Install occupancy control for intermittently occupied rooms

HVAC/Mechanical Efficiency Measures:

1. Replace old packaged/split HVAC unit with high-efficiency HVAC
2. Replace old heat pump with high-efficiency heat pump
3. Replace boiler or furnace with high efficiency condensing type
4. Seal existing leaky duct
5. Install premium efficiency motors
6. Install variable speed drive for pumps and fans
7. Install new programmable/set back thermostat
8. Replace storage water heater with instantaneous water heater

Plug-Load Efficiency Measures:

1. Install smart strip/PC management to control computers/printers
2. Install vending machine occupancy control.

Simple PV Self-Generation Project:

1. School-owned PV system

APPENDIX C:
Proposition 39 Funding Pathway Example

Energy Planning Funding Option
If requested, Energy Planning funding can be used to pay for Proposition 39 program *Guideline* Steps listed below:

SIMPLIST PATHWAY TO PROPOSITION 39 ENERGY FUNDING:

- **Step 1:** Electric and Gas Usage/Billing Data
  - ✓ 12 months site energy usage before project installation
- **Step 2:** Benchmarking of facilities
- **Step 3:** Energy Project Prioritization Considerations (Statue required considerations)
- **Step 4:** Sequencing of Facility Improvements (Energy Commission recommendations)
- **Step 5 & Step 6:** Energy Survey - Project Identification
  - ✓ Energy Saving Calcuator Tool
- **Step 7:** Complete and Submit an Energy Expenditure Plan
  - ✓ Energy Expenditure Plan reviewed and approved

LEA Independent Responsibilities
- ✓ DSA Compliance
- ✓ CEQA Compliance
- ✓ Contracting
- ✓ Project Management

- **Step 8**: Project Tracking and Reporting
  - ✓ 12 months site energy usage after project installation
  - ✓ Use Energy Commission Calculator

Proposition 39 Funding Pathway Example

All LEAs must follow the basic pathway; however, some LEAs with large funding awards may choose other options within each of the steps.

For example, within Step 5 Eligible Energy Measure Identification, an LEA may need to complete an ASHRAE Level 2 energy audit for energy measure identification and analysis. See "Process to Receive K-12 Eligible Energy Project Award Funding" section in Chapter 2 for all pathway options.

APPENDIX D:
Benchmarking Process

Energy Benchmarking Steps

1. Gather Energy Data and Summarize Energy Data

Gather and summarize energy usage data for all energy sources, including electricity, natural gas, and fuel oil. To accomplish this, an LEA gathers the last 12 months of utility bills, including electricity, natural gas, and fuels, to calculate the EUI. If a school has two or more meters for electricity, natural gas, or other fuels, the utility data shall be combined for one EUI calculation. Benchmarking a facility must be performed on a school-by-school basis. Table D-1 shows the data required to calculate EUI. If LEA staff members have difficulty gathering this information, they may contact their local utility or energy provider.

Table D-1: Example of School Energy Use Data Annual Summary

FACILITY	XYZ School								
UTILITY:	PG&E								
School SQFT:	11,000								
		Electricity			Gas		Other Fuels		Total Energy
		Account No.		Rate	Account	Rate	(propane/diesel)		Cost
	Year	Average Peak Demand (kW)	Total Energy Use (kWh)	Electric Charges ($)	Total Gas Use (Therms)	Natural Gas Charges ($)	Total Fuel Use (Gallons)	Fuel Charges ($)	Total Charges ($)
Total	2012	63.3	85,815	$ 16,465	6,928	$ 6,030	0	$ -	$ 22,495

Source: California Energy Commission

2. Establish Energy Use Intensity

Establish an EUI for your school. After collecting 12 months of energy cost data and knowing the square footage of your school, the next step is calculating the EUI by dividing the annual energy use by the gross[6] square footage of the school for each end-use energy category. For example, in Table D-1, the LEA staff looking at XYZ School divides the total 85,815 kWh use by the total square footage of 11,000 to obtain the electricity use intensity of 7.8 kWh/sq.ft/year. Next, perform the same calculations for natural gas, other fuels, and total cost.

6 Square footage inside the perimeter of exterior walls (less courtyards).

Table D-2 below shows the EUIs for XYZ School. The two numbers (highlighted in yellow) the Total Energy Cost/sq.ft./year and Kbtu/sq.ft./year are the two numbers required in the energy expenditure plan.

Table D-2: Benchmarking Report for XYZ School

Annual Electricity (kWh)		Annual Natural Gas (Therms)		Annual Other Fuel		Energy Costs/ sq.ft/ year	[7]Kbtu/ sq.ft/year
KWh/sq ft	7.8	Therms/sq ft	0.44	Gallons/sq ft	0		
Cost/sq ft	$1.16	Cost/sq ft	$0.39	Cost/sq ft	$0.00	$1.55	127.8

Source: California Energy Commission

3. Create Benchmarking Report and Rank Schools

Based on the EUI, a benchmarking report is created. This is a simple report that lists the EUI for each school site. Simply sort the school sites based on the energy use intensity and rank in order.

4. Identify the Lowest Energy Performers

Identify the lowest energy performing schools. These will be the schools with the highest energy cost per square foot and highest Kbtu per square foot. The report ranking will present the schools that consume the most energy when compared to others in the district.

7 Kbtu/sq ft/year = (kWh use x 10,716* + Therm use x 100,000 + propane gallon x 92,500 + fuel oil gallons x 138,500) / 1000 /total gross square footage of school.
*Electricity conversion factor to source energy is 10,716 Btu/kWh.

APPENDIX E:
Savings-to-Investment Ratio (SIR) Calculation

The SIR is calculated based on present value of savings divided by project installation cost subtracting project rebates and other grant fund sources using Equation 1 below. Note: If total project installation cost are greater than the Proposition 39 program award and additional financing is required, such as bond funds or private capital funds, this financing is to be considered part of the total project installation cost and is not deducted from the total project installation cost like a project rebate or other grant funding source.

The SIR value is automatically calculated using the Energy Commission's SIR calculator.

Equation 1: Savings-to-Investment Ratio (SIR)

SIR = NPV/(Project Installation Cost – Rebates – Other Grants – Non-energy Benefits)

Definitions:

- NPV: Net present value of project cost savings.
- Project Installation Cost: The total of all project design, equipment, and labor costs.
- Rebates: Utility rebates or other incentives that reduce the project costs.
- Other Grants: Any matching grant funds, (not including Proposition 39 awards) used to finance the project. This is funding that does not need to be repaid.
- Non-Energy Benefits: Other associated project benefits such as enhanced comfort, better indoor air quality, and improved learning environment.

How Is the Present Value of Savings Calculated in the SIR?

When calculating the net present value of a project, the escalation rate in energy cost, rate of inflation, and discount rate over time are considered. Moreover, the annual maintenance cost savings of the project is not expected to exceed 2 percent of the project installation cost. Finally, the net present value is calculated using the effective useful life of the equipment based on Table F-1 in Appendix F. The net present value is automatically calculated using the Energy Commission's SIR calculator.

Equation 2: Net Present Value

Net Present Value = Energy Cost Savings + Maintenance Savings

Definitions:

- Energy Cost Savings: Total energy cost savings realized over the life of the equipment, including kWh energy, kW demand, natural gas, and other liquid fuel savings.

- Maintenance Savings: Annual maintenance cost/savings (maximum 2 percent of project cost).

Assumptions[8]:

- Energy cost escalation rate = 4 percent
- Discount rate = 5 percent
- Inflation Rate = 2 percent

How Are the Non-Energy Benefits Calculated in the SIR?

The non-energy benefits are expected to provide savings, avoided costs, and other monetary benefits. For example, the health benefits of improved indoor air quality, which may improve student and teacher health and result in reduced absenteeism. These costs are quantified as a percentage of the project installation cost. The Energy Commission SIR calculator automatically accounts for non-energy benefits.

Equation 3: Non-Energy Benefits

Non-Energy Benefits = 5% x Project Installation Cost

Definitions:

- A 5 percent adder is used to estimate non-energy benefits associated with all energy efficiency projects.
- Project Installation Cost: Includes project design, site preparation, equipment, and labor costs.

The non-energy benefits considered by the Energy Commission are:

---

8 *Time Dependent Valuation of Energy for Developing Building Efficiency Standards*, for the California Energy Commission by Energy + Environmental Economics.

- Improved lighting quality.
- Improved acoustics.
- Improved indoor air quality.
- Improved occupant comfort.
- Improved health and safety (including accessibility upgrades)

How Are the Energy Savings Calculated in the SIR?

For the Proposition 39 program, energy savings are based on the difference between annual energy use under existing conditions and annual energy use under proposed conditions. These annual energy savings, and the corresponding annual energy cost savings, are used to determine the cost-effectiveness of the projects. Demand savings are calculated as the difference between the electricity demand of existing equipment and electricity demand of proposed equipment.

APPENDIX F:
Effective Useful Life for Energy Measures in Years

Source: 2008 and 2011 updates of Database for Energy Efficiency Resources (DEER) for building related energy efficiency measures.

Energy Measure Category	Energy Measure	Effective Useful Life (years)
Lighting	Interior Fixture Retrofit	15
	Interior Relamping	4
	Interior LED Lighting	15
	LED Exit Signs	16
	Exterior Fixture Retrofit	15
	Lighting Controls	8
HVAC	HVAC and Air Handler Repairs	5
	Packaged/Split Unit Replacement	15
	New Economizer	10
	Chiller/Boiler Replacement	20
	Condensing Furnace	15
	VAV System	15
	Retrocommissioning (Continuous)	10
HVAC Controls	Programmable Thermostats	11
	Energy Management System	15
	Chiller Controls Upgrade	20
Envelope	Insulation	20
	Cool Roofs	15
	Skylights	20
	Window Replacement	20
	Shading Devices/Window Films	10
Other	Premium Efficiency Motors	15
	Variable Frequency Drives (VFDs)	15
	Plug Loads – Power Management	4
	Plug Loads – Vending Machine Misers	5
	Domestic Hot Water Heater	20
Generation	Solar Photovoltaic (PV)	20

Background: Effective Useful Life for Energy Measures in Years

The EUL list for the energy efficiency measures is mainly determined from the 2008 and 2011 updates of Database for Energy Efficiency Resources (DEER) for building related energy efficiency measures. The general approach for selecting EULs for the 2008 and 2011 DEER updates was to review the various data sources and their underlying strengths and weaknesses and provide EUL recommendations that were determined to be most appropriate, based on the information that was available.

There are insufficient data for renewable and other generation projects in the DEER database and there is not a consensus number for these projects. The Energy Commission will consider other renewable and generation projects on a case-by-case basis based on available information, required maintenance, and project warranty period.

APPENDIX G:
Power Purchase Agreement SIR Calculation Considerations

Use of Power Purchase Agreements to Finance Clean Energy Projects

A power purchase agreement (PPA) is a financing option under which a vendor installs, owns and maintains the clean energy system (typically solar) on LEA property under a contract the LEA will purchase the electricity generated by the system. The LEA pays for the clean energy system through electricity payments over the life of the contract. The vendor owns, operates, and maintains the clean energy system for the life of the contract agreement.

Most LEAs have highly attractive, cost-effective energy efficiency measures available, and are strongly encouraged to consider energy efficiency measures first, as described in the Process to Receive K-12 Eligible Energy Project Award Funding, Step 4 – Sequencing of Facility Improvements. Ideally, schools develop long-term plans to invest their available capital resources, from Proposition 39 program awards and elsewhere, in ways that appropriately complement energy efficiency with operational improvements and clean energy generation projects.

If an LEA chooses to install clean energy projects using a PPA, the LEA may use Proposition 39 funds to invest in the project, provided the clean energy project meets the cost-effectiveness SIR criteria (Step 6) and the equipment is installed on the school site benefiting from the generated clean energy.

If an LEA chooses to finance a clean energy project using a PPA, an LEA must include a commitment (Letter of Intent) from a qualified developer in its Energy Expenditure Plan describing AT LEAST the following elements:

- Project or system size (capacity),
- PPA term,
- PPA energy rate, and any rate escalation,
- Anticipated rebate or incentive amount, and
- Estimated production (kWh/kW) and cost savings over the PPA term; and demonstrate that these savings meet the SIR.

The estimated cost savings must be based on the actual electric utility tariff schedule of the school site benefitting from the generated clean energy.

Any escalation in the PPA rate shall be limited to a maximum of three percent (nominal). All PPAs must include a performance guarantee ensuring at least 95 percent of a clean energy project's production over at least a 5-year period, and must have a performance and production guarantee for the life of the PPA term. In the event that actual production falls below this threshold, a vendor must reimburse or compensate an LEA (at the applicable PPA rate) for the shortfall.

APPENDIX H:
Estimating Job Creation and Workforce Development

The following questions offer a simple means of complying with the legal requirements of the Proposition 39 program.

1. **What type of work will be completed through this project, and what is the project budget?** Please fill in the corresponding budgets for each applicable type of work.

Type of Work / Project	Budget
ENERGY EFFICIENCY	
a. Energy efficiency measures for **building envelope** (e.g. insulation and air sealing, windows, doors, skylights, walls, roof)	
b. Energy efficiency measures for **mechanical systems** (e.g. heating, ventilating, air conditioning, plumbing)	
c. Energy efficiency measures for **electrical systems** (e.g. lighting fixtures, lighting controls)	
d. Other energy efficiency measures (please specify):	
e. Total Energy Efficiency Budget (add a through d)	
RENEWABLE ENERGY	
f. Solar energy generation system installation	
g. Other renewables (please specify):	
h. Total Renewable Energy Budget (add f and g)	
CLEAN ADVANCED DISTRIBUTED ENERGY	
i. Cogeneration/combined heat and power system	
j. Fuel cell generation system	
k. Other distributed energy system (please specify)	
l. Total Clean Energy Budget (add I through k)	
TOTAL PROJECT	
m. Total Project Budget (add e, h, and l)	

2. **How many estimated direct job-years[9] will be created by the project?**

Type of Work / Project	Estimated Direct Job-Years Created
a. Energy Efficiency (multiply project budget from #1e by 5.6 direct job-years per $1 million invested)[10]	
b. Renewable Energy (multiply project budget from #1h by 4.2 direct job-years per $1 million invested)[11]	
c. Clean Distributed Energy (multiply project budget from #1l by 4.2 direct job-years per $1 million invested)[12]	
d. Total Project (add a through c)	

9 A *job-year* is defined as a full-time job that lasts for one year—not one permanent job.
10 A review of studies on labor intensity of energy efficiency projects indicates that on average 5.6 direct job-years are created per $1 million invested for energy efficiency retrofits. See Zabin and Scott, Proposition 39: Jobs and Training for California's Workforce, page 11: http://www.irle.berkeley.edu/vial/publications/prop39_jobs_training.pdf
11 A review of two studies on solar PV labor intensity indicates that on average 4.2 direct job-years are created per $1 million invested for solar energy generation system installation. See Zabin and Scott, page 11.
12 It is assumed all clean distributed energy generation systems have the same labor-to-investment ratios as the solar PV average of 4.2 direct job-years per $1 million invested.

3. **How many estimated direct job-years will be filled by first-year apprentices?**[13]
    - Total direct job-years from #2d: _____divided by 36 = _____
    - List the names of all state-certified apprenticeship programs for apprentices that will work on this project(s).
    - Estimated budget for apprenticeships_____

4. **Will other types of trainees be employed on this project? If so, how many and what types of trainees?**

5. **Will this project be subject to a community benefits agreement (CBA), community workforce agreement (CWA), or other mechanism that defines project co-benefits (e.g. targeted hire requirements, training program support), including but not exclusive to project co-benefits that accompany a project labor agreement?**

---

13 Roughly two-thirds of the direct jobs on Proposition 39 projects will be in traditional construction trades occupations, according to occupational analysis from the 2011 California Workforce Education and Training Needs Assessment for Energy Efficiency, Distributed Generation, and Demand Response by the UC Berkeley Donald Vial Center. In public works construction the California Labor Code requires at least one hour of apprentice work for every five hours of journey-level work on a project. Therefore, apprentice jobs are roughly equivalent to total direct jobs multiplied by one-ninth (two-thirds times one-sixth) or, put more simply, total direct jobs divided by 9. Energy Commission staff estimates that first-year apprentices would comprise one-quarter of these apprentice jobs (equivalent to total direct jobs divided by 36) based on the assumption that apprenticeship programs average four years and that there is an even distribution of first-year through fourth-year apprentices for these projects.

APPENDIX I:
Definitions

a) **American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) –** ASHRAE is an international technical society organized to advance the arts and sciences of heating, ventilation, air-conditioning and refrigeration.

b) **Applicant –** Any entity applying for funds under this program.

c) **Average Daily Attendance (ADA) –** The State of California funds LEAs based on student attendance. ADA is the total days of student attendance divided by the total number of instructional days.

d) **Award –** The amount of funding allotted to an LEA in a fiscal year as calculated by the California Department of Education and as defined in Public Resources Code Section 26235(c)(6). The award is provided only upon approval of an energy expenditure plan by the Energy Commission.

e) **Building Envelope** –The outer shell of the building that separates the controlled indoor environment from the uncontrolled outdoor environment or building enclosure.

f) **California Community Colleges Chancellor's Office (CCCCO) –**The state agency that oversees the California Community College District system.

g) **California Conservation Corps (CCC) –** The state department that provides full-time employment opportunities for young men and women, ages 18-25, and veterans to gain work experience, skills, and training while performing important resource conservation projects for California.

h) **California Department of Education (CDE) –** The department responsible for overseeing the state's public school system and enforcing education law and regulation.

i) **California Energy Commission (Energy Commission) –** The primary state agency responsible for energy policy and planning.

j) **California Public Utilities Commission (CPUC) –** The state agency that regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies.

k) **California Workforce Investment Board (CWIB) –** The state agency responsible for assisting the Governor in performing the duties and responsibilities required by the federal Workforce Investment Act of 1998.

l) **Chairman –** The member of the Energy Commission who directs the Public Adviser, the Executive Director, and other staff in the performance of their duties in conformance with the policies and guidelines established by the Energy Commission.

m) **Citizens Oversight Board** – The board created in PRC section 26210 that provides accountability, independent audits, and public disclosure of all Proposition 39 program funding.

n) **Data Analytics** – A "no-touch" or Web-based "virtual" energy assessment.

o) **Division of the State Architect (DSA)** – The state agency responsible for design and construction oversight for K–12 schools, community colleges, and various other state-owned and leased facilities.

p) **Eligible Energy Project** – Energy efficiency measures and/or clean energy installations in or at a school site.

q) **Eligible for Free and Reduced-Priced Meals (FRPM)** – Determined to meet federal income eligibility criteria or deemed to be categorically eligible for free or reduced-priced meals under the National School Lunch Program, as described in Part 245 of Title 7 of the Code of Federal Regulations.

r) **Energy Efficiency Measure** – A type of energy measure that improves energy efficiency.

s) **Energy Expenditure Plan** – The request by an LEA for Proposition 39 funding. The energy expenditure plan is submitted to the Energy Commission and includes technical description and specifications for proposed eligible energy measures.

t) **Energy Measure** – An installation or modification in a school site that improves energy efficiency or expands clean energy generation**.**

u) **Energy Use Intensity (EUI)** – The amount of energy used in a building relative to the size of the building.

v) **Funding Award** – Award of funds to an applicant under this program through a funding distribution, contract, grant, loan or interagency agreement.

w) **Kbtus –** One thousand British thermal units (btus). Btus is the traditional unit of energy. It is the amount of energy needed to cool or heat one pound of water by one degree Fahrenheit.

x) **kWh –** One kilowatt of electricity supplied for one hour.

y) **kW –** One thousand watts.

z) **Lead Commissioner for Energy Efficiency Policy Matters** – The member of the Energy Commission charged with policy direction for all matters concerning energy efficiency at the Energy Commission including, but not limited to, Proposition 39 implementation.

aa) **Local Educational Agency (LEA)** – A county office of education, school district, charter school, or state special school.

bb) **Local Utility**– Energy utility (not a water utility).

cc) **Program** – California Clean Energy Jobs Act, Public Resources Code Division 16.3 added by Proposition 39 and SB 73.

dd) **Program Element** – The subject area designated for funding by the California Clean Energy Jobs Act or the 2013-14 Budget Act (that is, energy efficiency for LEAs).

ee) **Project Installation Cost** – The total of all project costs including design, site preparation, equipment, and labor.

ff) **Savings-to-Investment Ratio (SIR)** – The SIR is the ratio of the present value savings to the present value costs of an energy efficiency measure or alternative energy generation.

gg) **School Site** – Any local educational agency facility site. Examples include a school campus, district office, county office of education facility or charter school facility.

hh) **Second Principal Apportionment (P-2)** – Apportionment based on the second period data that LEAs report to the CDE in April and May and is the final state aid payment for the fiscal year ending in June.

ii) **State Superintendent of Public Instruction (SSPI) –** The elected official of the State of California who superintends the schools of the state and is the executive officer of the CDE.

APPENDIX J: List of Acronyms

ADA	Average Daily Attendance
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
BTU	British Thermal Unit
CALGreen	California Code of Regulations, Title 24, Part 11,Green Building Standards
CBC	California Building Code
CCC	California Conservation Corps
CCCCO	California Community Colleges Chancellor's Office
CCCD	California Community College District
CCR	California Code of Regulations
CDE	California Department of Education
CEQA	California Environmental Quality Act
COB	Citizens Oversight Board
CPUC	California Public Utilities Commission
CWIB	California State Workforce Investment Board
DSA	Division of the State Architect
ECAA	Energy Conservation Assistance Act
ECAA-Ed	Energy Conservation Assistance Act-Education Subaccount: Loan and Grant Program

EUI	Energy Use Intensity
FRPM	Free and Reduced-priced Meals
HVAC	Heating, Ventilation, and Air Conditioning
K-12	Kindergarten through 12th Grade
Kbtus	One thousand British Thermal Units
kW	One thousand watts
kWh	One kilowatt of electricity supplied for one hour
LEA	Local Educational Agency
LED	Light-Emitting Diode
O&M	Operations and Maintenance
P-2	Second Principal Apportionment
PV	Photovoltaic
SB	Senate Bill
SIR	Savings-to-Investment Ratio
SQ FT	Square Footage
SSPI	State Superintendent of Public Instruction